# PROJECT DELIVERY OPTIONS

# Volume 2 of 2

# Selecting the Appropriate Project Delivery Option

# Recommended Guidelines



Georgia State Financing and Investment Commission Version 2.0

May 2003

#### Preface:

This edition of the Project Delivery Selection Guidelines is intended to assist the Client Agency during the development of their Implementation Plan during the Predesign Phase. This document, originally published as one section in August 2001, has now been re-published as two separate volumes.

Volume 1, "Project Delivery Methods, Understanding Your Options," is intended to give Client Agencies an understanding of the project delivery options available to them. Volume 2, "Selecting the Appropriate Project Delivery Option," is intended to provide some guidance to the Client Agency during their Predesign Phase when trying to determine which option to recommend.

This document, now two volumes, is the second generation, but it is still not intended to be the final edition. It is anticipated that, once the principles stated herein have been tested, changes to the Guidelines will be necessary. Any comments or suggestions on how to improve this document to make it easier to understand and use would be greatly appreciated.

#### Acknowledgements:

The Georgia State Financing and Investment Commission (GSFIC) wish to take this opportunity to express our sincere appreciation to our industry partners and those state employees who donated their time and effort to the development and production of this document. Without their assistance, not only would the quality of the document have suffered, it would not have existed at all.

The following is a list of participants who contributed to the original version of this document upon which this updated version has been substantially based:

Art Brook, Nottingham, Brook & Pennington, Inc.

Peter Finsen, Jacobs Facilities, Inc.
Rett Gunn, Barton Malow Company
Mike Kenig, Holder Construction
Gillis MacKinnon, Sizemore Floyd, LLC
Rob Mauldin, 2KM Architects, Inc.
Kurt Mueller, Beers Construction Company
Tom Nesmith, Putzel Electrical Contractors, Inc.
Chip Patrick, J.M. Wilkerson Construction Co.
Wayne Robertson, Brookwood Group
Herb Saunders, Lakeside Project Services
Mark Woodall, Georgia Branch of Associated General Contractors of America

Gena Abraham, Georgia Building Authority
David Clark, Dept. of Juvenile Justice
Joe Davis, Governor's Office of Planning and Budget
Ron Nawrocki, Governor's Office of Planning & Budget
Mike Plumb, Georgia Department of Technical and Adult Education
George Zier, State Law Department

The following is a list of participants who contributed to the updating of this new version:

Mike Kenig, Holder Construction Doug Stelljes, Barton Malow Construction Chris Williams, Gleeds

Lamar Holland, Georgia State Financing and Investment Commission Ron Nawrocki, Governor's Office of Planning and Budget Kimball Peed, Georgia State Financing and Investment Commission

# Selecting the Appropriate Project Delivery Option

## **Table of Contents**

1.	Purpose	Page 4
2.	The List of Options	4
3.	The Major Factors	5
4.	Applying the Major Factors	14
5.	Applying the Major Factors – Sample Projects	15
6.	GSFIC "Project Delivery Option Recommendation Form"	20

#### **Appendices**

- A. Georgia Code, Section 50-5-67
- B. The Major Factors (One Page Summary)
- C. Major Factors Worksheet
- D. Project Delivery Option Recommendation Form
- E. Project Delivery Options Matrix

Latest Version of this document can be found at the following website:

http://www.ganet.org/gsfic/

## 1. Purpose

Goal The goal of this section of the manual is to assist the Client Agency in selecting the most appropriate project delivery option to recommend as part of the Predesign Study's Implementation Plan.

Prior to using this section, the Client Agency should have a complete understanding of the project delivery options available to them. The typical available options are outlined in Volume 1 of the "Project Delivery Methods, Understanding Your Options" section.

Regulations within a given agency may also determine which project delivery option can be used. A review of the pertinent laws, rules, regulations, and policies early in the life of the project is also strongly recommended in order to allow time to obtain approval for use of an alternative project delivery option.

For example, the bylaws of the Georgia State Financing and Investment Commission (GSFIC) require that all contracts be awarded based on competitive sealed bids unless an alternative delivery option is approved by the Executive Secretary of the Commission (who also serves as the director of the Construction Division). The director will base the decision on the rationale provided by the requesting agency and the factors discussed in this section of the Manual. GSFIC has created a "Project Delivery Recommendation Form" (see Appendix D.) to be used by the Client Agency seeking approval to use any project delivery option other than Design-Bid-Build.

To be able to recommend the most appropriate option, experience with going through the thought process of applying the factors outlined in this chapter is essential. It is even better and widely considered to be good practice to use the counsel of a group of trusted advisers who can help to be sure that all the factors and their interrelationships can be as fully evaluated as possible.

Your trusted advisors should be experienced not only with going through the thought process of applying the major factors, but ideally are also experienced with implementing all of the different delivery options. Everyone is biased based on his or her individual experiences. Your advisors should be able to admit their prejudices based on their experiences and then set them aside to help you evaluate which delivery option is in the best interest of your particular project.

## 2. The List of Options

#### **Honoring the Public Trust**

The State of Georgia strongly supports full and open competition among general and specialty contractors and their suppliers and service providers. The construction industry's health and integrity depends on every qualified firm having an equal opportunity to compete. Public owners must be diligent in honoring the public trust while searching for more innovative and flexible approaches to construction. The public owners who choose alternative project delivery options must ensure that the option chosen is properly and fairly used to serve the public interest with quality, cost effective, and timely construction. Whatever option is used, the selection process for both design services and construction procurement should be consistent, open, competitive, and free of political influence.

As described in Volume 1 of this section, "Project Delivery Methods, Understanding Your Options" delivery methods are defined by several distinguishing characteristics related to the number of primary contracts for design and construction, and the basic services provided.

Another key aspect related to the use of any delivery method is the procurement and selection process to be followed, particularly related to the construction related services. In Georgia, there are two basic procurement processes: competitive sealed bid and competitive sealed proposal.

With competitive sealed bid, the selection is based solely on price (which must be clearly defined), with the award going to the responsible and responsive bidder submitting the lowest price. Proposals require the use of evaluation factors, which may or may not include price, cost, or fee as part of the evaluation criteria.

The list of delivery options available in Georgia which are discussed in this manual include:

- Design/Bid/Build Competitive Sealed Bid (D/B/B)
- 2. Construction Management/General Contractor Competitive Cost Proposal (CM/GC CC)
- 3. Construction Management/General Contractor Competitive Qualifications Proposal (CM/GC CQ)
- 4. Design/Build Competitive *Cost* Proposal (D/B CC)
- 5. Design/Build Competitive Qualifications Proposal (D/B CQ)
- 6. Design/Build Competitive Sealed Bid (D/B Bid)

Someone is selecting one of these six options on every project. How exhaustive that thought process is, whether they just select the one they always use, whether they are visualizing all six options or just one or two of the options, they are going through some kind of thought process resulting in the selection of one of these six options.

## 3. The Major Factors

Having established a delivery method vocabulary, the next step is to determine which is most appropriate for a particular project. The Client Agency should consider the major factors influencing the project in question and then consider the requirements of the project in light of the unique characteristics of each of the various project delivery options. By applying these factors, the Client Agency should be able not only to recommend a delivery option, but also be able to answer the question, "Why am I recommending a particular delivery option?"

Just selecting the "right" delivery option is not enough. There are numerous details to be addressed in order to ensure the desired results are achieved. Requests for Proposals that clearly spell out expectations and match the right selection criteria with the right project delivery option are examples of the type of issues that must be addressed when selecting and implementing any project delivery option. Agencies looking for assistance with these should contact GSFIC.

#### **Risk Allocation**

The risks associated with the design and construction process are generally not affected by the chosen project delivery method. However, the timing and the allocation of the risk do vary depending on the project delivery method. Therefore, each delivery option provides a different approach to allocating the risks and typically will result in timing differences in transferring the various risks. Any first time user of any project delivery option is cautioned to be sure they understand these differences.

The degree of risk assumed by the design and/or construction party should be directly proportional to the cost associated with the project. The risk(s) associated with a construction project should be allocated to the party with the best ability to control and manage that risk. The purchase and the requirement for purchase of insurance coverage is just one way in which owners, designers, and contractors try to allocate and control some of the risk.

In selecting the appropriate delivery option, a thorough review of the potential risks and their allocation should be performed. Then, the Client Agency should evaluate its ability and willingness to assume the risk inherent to the option selected. To accomplish this, each of the relevant factors should be reviewed and considered.

#### The Factors

The Design-Bid-Build option is the primary delivery option for the State of Georgia. However, there are many factors affecting a particular project that might eliminate this option necessitating the consideration of other delivery options.

Although there are a number of factors in making a decision concerning which option to recommend, by the time a few "major" factors are applied, it becomes apparent which options are least appropriate. By the process of elimination, the most appropriate options can be determined. These Major Factors are divided into five categories as shown in the table below:

Schedule/ Necessity to Overlap Phases	Ability to Define the Project Scope/ Potential for Changes	Owner's Internal Resources & Philosophy	Desire for a Single Contract or Separate Contracts	Regulatory/Legal or Funding Constraints
Tight Project Milestones or Deadlines	Scope Definition	Ability or desire to define and verify program & design content /quality	Ability or desire to take responsibility for managing the design	Regulatory and Statutory Requirements
Amount of overlap of design and construction phases	Potential for Changes during Construction	Experience with the particular delivery method & forms of contracts	Ability or desire to eliminate responsibility for disputes between design and builder / single point responsibility	State Budget and Funding Cycle
	Need/Desire for the Contractor Input during design	Ability to participate in multiple trade contractor / supplier evaluation		
	Flexibility to make design changes after construction cost commitment	Desired contractual relationship and ability to recoup savings		

These are certainly not all that need to be considered, but addressing these major factors will guide the selection of the most appropriate delivery option. Furthermore, addressing these early in the project cycle will increase the chances for a successful project.

For each factor, there is a "critical question" that should be considered. With each factor below, this critical question is identified in brackets. The amount of control an Owner will have throughout the process, and how and when the Owner allocates and manages the project risks, may both be affected by how each of the factors is addressed.

As a tool to assist the Client Agency, a one-page summary of these Major Factors is attached as Appendix B. – "The Major Factors (One Page Overview)".

#### Schedule / Necessity to Overlap Phases

#### Tight Project Milestones or Deadlines

# Critical Question: Is overlap of design and construction phases necessary to meet schedule requirements?

Schedule is always a consideration on construction projects and will often drive the selection of the project delivery option. During the Predesign Phase, a preliminary master schedule should be developed. This master schedule will include an estimated duration for each phase of the project:

need identification, project identification and planning, predesign, design, award, construction, and occupancy.

Simultaneously, the State entity should evaluate their required date for occupancy. Comparing this date to the date generated from early versions of the preliminary master schedule will indicate whether any acceleration or overlapping of any of the phases may be required. "Traditional" Design/Bid/Build is inherently a linear, sequential process as opposed to Design/Build or CM/GC, each of which is capable of overlapping of the phases in the design and construction process.

**Ramifications**: If the project requires a schedule that can only be maintained by overlapping of the design and construction phases, then one of the alternative delivery options should be considered.

#### Amount of Overlapping of Design and Construction Phases

Critical Question: Is there time to complete the Design Development stage of the design prior to starting construction?

Assuming it has already been determined that a traditional linear approach to the design and construction phases will not work, and some overlapping of the two phases is necessary, the next question is, "How much overlap of the design and construction is required?" If the construction start date is dictated by the construction completion date, and is required to be very early in the design process (e.g., during the Schematic or early Design Development stages), then the Client Agency should understand the additional responsibility and risk they may be taking by retaining the design responsibility and holding of the design contract.

Other factors such as available resources to manage the design, experience with managing the aggressive decision making that will be required, and the possibility of being placed in between the design firm and the builder would all be closely related to the evaluation of this factor.

**Ramifications**: If the project requires that construction start early in the design process, then who is taking responsibility for managing the design and the timely completion of the design needs to be considered. Transferring the design risk to the party responsible for construction may be a reason to consider using Design-Build in lieu of CM/GC.

#### Ability to Define the Project Scope / Potential for Changes

#### **Scope Definition**

Critical Question: Is the scope of work difficult to define?

Each Client Agency is unique and will have special requirements that could have a major impact on determining the proper method of delivery. Similarly, the complexity of the project and the ability to fully define the scope, early in the process, could also have an impact on determination of the appropriate project delivery option.

The three critical points in the project relative to the need to fully define the scope are:

- 1. Prior to selection
- 2. After selection, prior to establishing quality, cost, and schedule
- 3. After establishing quality, cost, and schedule

Each delivery option will require different levels of scope definition at each of these critical points.

The inability to fully define scope early in the process will have a direct impact upon the Client Agency's ability to manage scope and cost increases later in the project.

**Ramifications**: If it would be difficult to produce a set of drawings and specifications that will fully describe the work in question (e.g., a renovation of an existing building), then one of the qualifications based selection options should be considered.

\_\_\_\_

#### Potential for Changes During the Construction Phase

Critical Question: Is there a significant potential for changes during the construction phase?

Whenever the scope is difficult to define or other issues tend to indicate that there is a high potential for changes during the construction phase, careful consideration should given on how this will be handled. If one of the competitive cost delivery options (D/B/B, CM/GC CC, D/B CC) is used, as much of the work as possible should be quantified before a lump sum cost is agreed upon. If possible, one of the competitive qualifications options (CM/GC CC, D/B CC) should be considered.

**Ramifications**: If the scope of the project is likely to change during construction, then one of the qualifications based delivery options may be more appropriate. An example might be a project where the tenants are unknown or likely to change. In this example, the identification of the tenants may be a cause for required changes throughout all phases of the project including during the Construction phase.

#### Need/Desire for the Contractor Input during Design

Critical Question: Is Contractor input during design required or desired?

Throughout a project, the Client Agency will make decisions based on their definition of value. What varies from one project delivery option to another is who (which team member) is providing the information and when during the project sequence.

This manual looks at two broad types of information provided: 1) Design Solution and 2) Constructability (including cost and schedule review of design solutions). What differs with each delivery option is who is providing the information and when are they brought on board. Also, when the information is being provided, and whether the information is intended to be provided at specific points in time or continuously throughout the process, will depend on which delivery option is chosen.

There are many times when the demands of the project are unique or difficult to quantify. In these instances, the option of having the contractor on board during the design phase can be of value. The contractor can assist in schedule development and monitoring, in constructability and budget reviews, in factoring in current market conditions, and in locating and procuring long lead equipment items and trade contractors necessary for the work.

If there are significant schedule, budget or constructability issues, it can be helpful for the decision maker to review these issues during the design phase. Many times the designer does not have the range of experience in the actual construction of a project to adequately address these issues. However, it should be noted that it is possible to hire a consultant to perform these tasks that will leave the agency open to all of the delivery methods and enable management and development of the scheme prior to commitment to a contractor.

**Ramifications**: If the assistance of the contractor is desired during the design phase to assist in defining the scope, constructability reviews, schedule determination, or budget confirmation, then one of the alternative delivery options should be considered.

\_\_\_\_\_

#### Flexibility to Make Design Changes after Construction Cost Commitment

Critical Question: Are your design and scope requirements fully defined?

The cost of making changes throughout a construction project increases as the project develops. In the worst case needing to make changes to work already in place; in an ideal situation the design should be developed to the point where the scope of works is known and the amount of changes can be reasonably predicted before commitment to a contractor.

Where the design is used as the basis for selection of the contractor in a competitive cost environment, its completeness will be a key factor in the successful cost management of the project once a commitment has been made to a contractor, regardless of whether construction has started.

**Ramifications**: It is important when selecting your project delivery method to consider how tightly the scope of work can be defined and review whether design flexibility is required during the construction process. If a significant amount of flexibility is required after commitment to a contractor, then a qualifications based selection method might be more appropriate than one of the competitive cost methods.

#### Owner's Internal Resources & Philosophy

#### Ability or Desire to Define and Verify Program and Design Content Quality

Critical Question: Will the Owner utilize outside resources to verify quality?

The Owner's assurance that there is a responsible person designated to verify quality during construction will relate directly to the Owner's in-house resource availability, and to what party the Owner assigns the role of project management on each specific project. How much direct influence an Owner has on how the quality is defined and verified will be affected by the decision of which option is chosen.

The Owner's definition of quality must be identified and communicated for the record early in the process. The quality of a construction project can be characterized by the following:

- Functional quality the ability of the facility space to meet the Client Agency's program requirements (as well as code and safety requirements)
- Systems quality the ability of the various building systems to meet the Client Agency's defined needs
- Aesthetic (scope) quality the level of design and finish as defined in the design documents
- Workmanship quality the physical execution of the design

All of these are closely related. How they are defined and verified should be considered when determining which project delivery option to use.

In the standard Design/Bid/Build delivery option, the definition of quality is heavily dependent upon the architect's ability to understand and translate the owner's needs. In the CM/GC delivery options, this task is still assigned to the architect though with assistance from the contractor. In design/build the design-builder assumes these duties. Production of quality during the

construction phase is, in every option, the primary responsibility of the contractor, but the verification of that quality will vary between the options. The architect, as the owner's representative, is responsible in Design/Bid/Build and construction management. The Owner assumes this role in design-build.

**Ramifications**: If in-house resources are not available, then extra caution should be taken when using design-build. If design/build is desired and in-house resources are not available, outside resources should be engaged to assist in verifying that the quality desired by the owner is incorporated.

\_\_\_\_\_

#### Experience with the Particular Delivery Option and Forms of Contracts

Critical Question: Is agency in-house personnel experienced in alternative delivery options or, if not, will in-house personnel be augmented by other agency or contracted personnel?

The responsibility for success on every State construction project ultimately rests with the Agency requesting the funds for the project. Thus, the responsibility for overseeing and managing the entire process resides with the Client Agency. A "project manager" typically handles the process, whether formalized or not. For a typical State project, this responsibility can be fulfilled in one of several ways including:

- 1) In-house resources
- 2) Another state agency
- 3) A third-party consultant

One factor to consider is the level of expertise and experience of the Client Agency embarking on the construction project. In deciding which project delivery option and form of contract to recommend, the availability of Client Agency staff resources and experience is a major consideration. Some agencies perform construction routinely and have capable and available staff to manage all phases of the project. Others seldom involve themselves in construction and thus obtain experienced assistance.

Support from other State agencies is available, as an option, such as through the Construction Division of the Georgia State Finance and Investment Commission. Other agencies may also have resources to be shared.

Obtaining assistance for the Client Agency from a third party project or program manager in certain circumstances may be considered. There are unique requirements for the State construction process. This should be taken into consideration when evaluating the use of third-party resources.

**Ramifications**: Regardless of the delivery option selected, if the Client Agency is inexperienced in management of a capital outlay program, assistance should be obtained by contracting with an experienced professional or by making arrangements for assistance from another state agency that has that experience.

that has that experience.

#### Ability to Participate in Multiple Trade Contractor & Supplier Evaluations

Critical Question: Do you need the ability to participate in the selection and evaluation of trade contractors or suppliers?

There may be instances where you have a direct interest in the selection and evaluation of subcontractors or suppliers for a portion or the majority of the work. For example, you may have a

complex security system within your building that will require development with a particular subcontractor.

Instances may also occur where many elements of the project scope require development, particularly in a fast track environment, and a relationship is required that offers a high degree of flexibility in choice and cost transparency from the subcontractor via the contractor.

**Ramifications**: Where the input required is limited to specific trades or suppliers it is important to ensure your bid documents are structured in such a way to allow control over individual element, in which case any of the delivery options could suit your requirements. However, if you require a high degree of flexibility across many elements of the project then a competitive qualifications selection option will afford you greater control and cost transparency.

#### Desired Contractual Relationship and Ability to Recoup Savings

# Critical Question: Does the Owner wish to have a complete and timely access to all of the Contractor's Information?

How the Owner selects the construction entity and the resulting contractual relationship created will affect what information is required to be provided and when. For example, whether or not the State agency and their consultants are participants in the specialty contractor and vendor selection process and the information shared during this process, will be a direct result of the contractual relationship created. Access to all available information may or may not be necessary or desired. The Client Agency should be aware that the selection of a project delivery option and the resulting contractual relationship would likely affect the manner in which information may be required to be provided.

Legally, a fiduciary relationship arises automatically in several situations, however the specific form of fiduciary relationship contemplated in this document is the one arising when a person or firm has a duty to act for another on matters falling within a contractual relationship. More specifically, a person or entity acting in a fiduciary relationship to the owner owes the owner the duties of good faith, trust, confidence, and candor, and must exercise a high standard of care in managing money and property.

A Competitive *Cost* Proposal selection based on Total Construction Cost will generally result in a contractual relationship that is not a fiduciary one. This will affect the timing of the availability of information and the ability of the Owner to make use of that information. If the construction entity is not on board during the design (typical in Design/Bid/Build when cost is the only consideration), collaboration at this stage is not an issue. If, however, some contractor involvement during the design phase is needed, a Competitive *Cost* Proposal, that includes considerations other than Total Construction Cost, can be used in selecting the Construction Manager/GC or the Design/Builder. Nonetheless, the contractual relationship developed is generally very similar to Design/Bid/Build concerning access to information.

A Competitive *Qualifications* Proposal (the Construction Cost of Work not a factor at the time of selection) will create a fiduciary relationship. This also allows complete and timely access to the contractor's information. If the project scope is difficult to define, or matching the scope to the project budget is anticipated to be difficult, then having a collaborative process could prove to be advantageous. In such situations, a qualifications-based selection might be more appropriate.

**Ramifications**: If the project necessitates an open, collaborative relationship among the parties, then a Competitive Qualifications selection should be considered.

#### Desire for a Single Contract or Separate Contracts

#### Ability or Desire to Take Responsibility for Managing the Design

Critical Question: Does the Owner have in-house design resources qualified to oversee design professionals, and does the owner have the ability to commit sufficient resources to design management?

Some state agencies may have professional staff capable of providing quality oversight of design professionals for the agency. The agency must make an honest self-assessment, taking into account factors regarding complexity of the project and competing obligations of in-house staff, to determine realistically whether the agency is capable of design management.

Given self-assurance in agency ability, the agency can then consider the practicality of any desire to take on the responsibility for providing design management. If the project is of such unique function that the agency has greater knowledge of its design intent than the agency thinks could be translated reliably into a design without intimate involvement of the agency's own staff, then the agency should consider holding a separate contract with the design professional. However, if the desire exists, the agency must consider its commitment to provide the necessary resources.

**Ramifications**: Ability and desire to manage the design of a project are both reasons to consider holding separate contracts for design and construction, and argue against Design-Build.

\_\_\_\_\_

# Ability or Desire to Eliminate Responsibility for Disputes Between Designer and Builder / Single Point Responsibility

Critical Question: Does the Owner desire to hold a single entity responsible for coordination, collaboration, and productivity for the entire project?

A completed project is the result of extensive coordination of talent and resources. The skill sets of the designer are not the same as those of the builder. Viewpoints and interpretations differ, as do personalities, agendas, ethics, and levels of responsibility.

Although holding separate contracts allows the Owner to manage the project through the leverage of direct legal relationships with the designer and with the builder, the Owner takes on the responsibility for resolving disputes between the other two parties. If the Owner has the greater desire to transfer that responsibility than to use his contractual leverage, his tool is the single contract with an integrated contractual delivery method—Design-Build.

**Ramifications**: The integrated nature of Design-Build, with its single contract, allows the Owner to hold a single entity responsible for the project and keeps disputes between the designer and the builder in-house with the Design-Builder. The trade-off is the loss of Owner leverage penetrating to the skill sets separately.

#### Regulatory / Legal or Funding Constraints

#### Regulatory & Statutory Requirements

Critical Question: Do laws rules, regulations, etc., permit the use of an alternative project delivery method?

Included as Appendix A is an extract from the Georgia Code, Section 50-5-67, which governs the award of contracts by the Department of Administrative Services and, with a few exceptions (*i.e.*, the Department of Transportation, the Board of Regents, the Georgia State Financing & Investment Commission, and the various State authorities), all other State agencies. Of those agencies not covered by Section 50-5-67, most, if not all, have adopted policies and procedures that are generally similar to these requirements.

The statutory requirements, under which a State entity undertaking a project operates, may ultimately be the deciding factor in selecting the project delivery option. The law, rules, regulations and policies of the Department of Administrative Services (DOAS) govern the procurement process for most State agencies. Others have their own laws, rules, regulations, and policies. While it is generally safe to say that the "standard" method of *Design-Bid-Build* is an acceptable method for all State entities, a review of the pertinent laws, rules, regulations, and policies early in the life of the project is strongly recommended in order to allow time to obtain approval for use of an alternative project delivery option. Regulations within a given agency may also determine which project delivery option can be used.

For example, the bylaws of the Georgia State Financing and Investment Commission require that all contracts be awarded based on competitive sealed bids unless an alternative delivery option is approved by the Executive Secretary of the Commission (who also serves as the Director of the Construction Division). The Director will base his decision on the rationale provided by the requesting agency and the factors discussed in this section of the Manual.

**Ramifications**: The decision on what delivery option is most appropriate must be made early in the Predesign phase of the project and properly documented so that sufficient time and justification can be prepared to gain approval for an alternative delivery option if that option is most appropriate.

#### State Budget and Funding Cycle

Critical Question: Is funding available for construction at initiation of design?

The State's budget and funding cycle could have an impact on the timing, sequencing and a subsequent recommendation of a project delivery option. There are three funding combinations for design and construction addressed by this manual. One is "Complete Project Funding" that would include design and construction funding all at one time. The second is "Phased Project Funding", which is one funding for design, and a second separate funding for construction. The third, is "Phased Construction Funding" which is one funding for design and then funding of multiple components of construction each funded separately.

**Ramifications**: While any of the options will work with Complete Project Funding, any phasing of the funding can have a major impact on the decision of which option to select. For example, without Complete Project Funding, Design/Build is not feasible.

## 4. Applying The Major Factors

With a list of options (illustrated in this matrix of "Georgia's Project Delivery Options" from Volume 1) and list of major factors to consider, the goal is to determine through a process of elimination, "Which project delivery options are least appropriate to recommend on my project?"

Again, since every project will have a unique set of circumstances, the Client Agency is reminded to use the benefit of a group of trusted advisers to help counsel them through the thought process and application of the Major Factors.

Georgia	Project Delivery (with Selection Types) # of CONTRA	<u> </u>
SELECTIONTYPES	Des igner & Contractor (2 separate contracts)	Des ign/Builder (1 combined contract)
Competitive Sealed Bid (Low Bid) Total Construction Cost is sole criteria for final selection	Des ign-Bid-Build	Des ign-Build Competitive Sealed Bid
Competitive Cost Propos al (Best Value) Total Construction Cost and other criteria are weighted factors in the final selection	CMGC Competitive Cost Propos al	Des ign/Build Competitive Cos t Propos al
Competitive Qualifications Propos al (Qualifications Based Selection) Total Construction Costs are <u>not</u> a factor in the final selection criteria	CM/GC Competitive Qualifications Propos al	Des ign/Build Competitive Qualifications Propos al

There is no perfect order in which to consider the Major Factors, no way to apply them to all projects, and no way to decide which factors should be given the most weight. For these reasons, you should consider the input of several advisers who have experience going through this process. This experience will enable the Client Agency to understand the consequences of managing the project under the various delivery options.

For example, the need to accelerate the schedule may be cited as one of the primary reasons Design-Bid-Build is not the best option. There are circumstances, however, where breaking the project into multiple prime bid packages, each being design-bid-build, is a perfectly reasonable option. Having someone with the experience and understanding of how to manage such a process, and the risks associated with it, could offer valuable guidance as to many of the pros and cons of delivering a specific project using a multiple prime contracting approach.

#### **Applying the Major Factors to the Matrix**

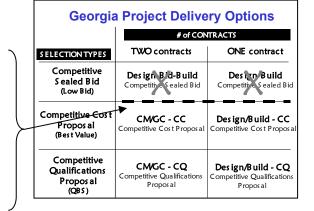
The following examples are intended to illustrate how these Major Factors can be applied to real projects. As the factors are considered, how they relate to the matrix shows how options have been eliminated. Since every project is unique, which factors apply and the weight they need to be given is also unique on every project. Therefore, these examples are offered for illustration purposes only. A group of trusted advisers should be able to use the benefit of their experience to assist the Client Agency in determining which factors should carry the most weight and ultimately which of these six options is most appropriate for each particular project.

Dashed line represents application of a "Major Factor"

For example, the factor regarding "the schedule and having the time to define the scope of the project to use as the basis for selection" is highlighted to the right.

If on a particular project, time does not permit the ability to complete enough of the design to use as the basis of a Competitive Sealed Bid, then the risk of using either of the Competitive Sealed Bid options may be too great.

Applying this factor to the matrix of available options illustrates how the two Competitive Sealed Bid options are eliminated as viable options on this particular project.



#### 5. APPLYING THE MAJOR FACTORS - SAMPLE PROJECTS

#### EXAMPLE #1: RENOVATION OF STATE CAPITOL

**Project Summary:** 

Renovation of historical building; to be renovated while remaining occupied; no requirement to accelerate completion; resources available to manage design and construction; all options were available.

#### **MAJOR FACTORS ANALYSIS**

 ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

Since the project was a historical renovation and hidden conditions were likely made the project scope extremely difficult to define and therefore, it was difficult to have a basis for a sealed bid or competitive cost proposal.

 OWNER'S INTERNAL RESOURCES & PHILOSOPHY

Given the nature of the design services needed, there was a desire to maintain direct control over the designer selection and also, the ability to have direct control over the designer throughout the design process.

 DESIRE FOR SINGLE CONTRACT OR SEPARATE CONTRACTS

Wanted to have architect to help define and verify the desired quality desired and provided. Also, wanted to ability to participate in evaluation and selection of trade contractors and suppliers along with other benefits of having an open book relationship. This included the ability to work openly to deal with the ongoing definition of scope throughout the project.

- SCHEDULE / NECESSITY TO OVERLAP PHASES This factor was inconsequential on this project.
- REGULATORY / LEGAL OR FUNDING CONSTRAINTS This factor was inconsequential on this project.

	# of CON	TRACTS
SELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	Des ign B.d-Build Competitive Sealed Bid	Design Build Competitive Sealed E
Competitive Cost Propos al (Best Value)	CMCC - CC Competitive, cost Propos al	Des ign, Build - Co Competitive Gost Propo
Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Propos al	<b>Des ign/B uild - C</b> ( Competitive Qualification Propos al

Georgia	a Project Delive	ery Options
	# of CON	TRACTS
SELECTIONTYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	Des ign B.d-B uild Competitive Sealed Bid	Des i in Build Competitive Sealed Bid
Competitive Cost Propesal (Best Value)	CMCC-CC Competitive cost Proposal	<b>Des ign, 3 y .ld - CC</b> Competitive cost Propos a
Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Proposal	Des ign, Ruild - CQ Competitive Qualifications Proposal

Approved Project Delive	ery Method:			
Design-Bid-Build	Design-Build		CM/GC	$\boxtimes$
Approved Type of Selec	ction:			
Competitive Sealed Bid Proposal	Competitive Cost		Proposal Cor	npetitive Qualifications
(D-B-B or D-B only	(CM/GC or D-B only)	)	(CM/GC or	DB only)

**Brief explanation:** Competitive sealed bids and competitive cost proposals were determined not to be the most appropriate due to the extreme difficulty in defining a project scope that could be used as the basis for the contractor pricing for a bid or cost proposal. The desire to have direct control over the selection of the most qualified design firm with experience with the product type along with the ability to manage the design directly eliminated design-build as an appropriate option. The project was fast-tracked and construction did overlap with the design, but this was more of an added benefit of using the CMGC CQ option, rather than a determining factor that was used to choose the CM/GC CQ option.

## APPLYING THE MAJOR FACTORS - SAMPLE PROJECTS (CONTINUED)

# EXAMPLE #2: CONSTRUCTION OF REGIONAL STATE OFFICE BUILDING

#### **Project Summary:**

Construction of a new State office building; there was time to design and build the project without overlapping phases; the scope was not anticipated to be difficult to define and the likelihood of changes was minimal.

#### **MAJOR FACTORS ANALYSIS**

ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

There was a high level of confidence that the scope of the project could be defined with little potential for changes. Therefore, this factor did not eliminate any options.

- SCHEDULE / NECESSITY TO OVERLAP PHASES
   There was time to design the project, bid and build it
   without overlapping any of the phases of the project.
   Therefore, this factor did not eliminate any options.
- OWNER'S INTERNAL RESOURCES & PHILOSOPHY

There were resources available to manage the design and construction phases. Though there were some potential benefits to bringing the contractor on board during design, this was not considered enough of a factor to eliminate any options.

DESIRE FOR SINGLE CONTRACT OR SEPARATE CONTRACTS

The risk of holding separate contracts and taking the risk for managing the design was considered reasonable. Therefore, this factor did not eliminate any options.

REGULATORY/LEGAL OR FUNDING CONSTRAINTS

All options were available. Therefore, none of the options were eliminated based on this factor.

Georgia	a Project Delive	ry Options
	# of CON	TRACTS
SELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	Des ign-Bid-Build Competitive Sealed Bid	<b>Des ign-Build</b> Competitive S ealed Bid
Competitive Cost Proposal (Best Value)	CMGC - CC Competitive Cost Proposal	<b>Des ign/Build - CC</b> Competitive Cost Propos a
Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Proposal	<b>Des ign/Build - CQ</b> Competitive Qualifications Propos al

**Georgia Project Delivery Options** 

TWO contracts

Des ign-Bid-Build

CM&C/-CC

CM/GC, CQ

SELECTION TYPES

Competitive

Sealed Bid (Low Bid)

Competitive Cost

Propos al (Best Value)

Competitive

Qualifications

# of CONTRACTS

ONE contract

Design-Build

Design/Ruild - CC

Design/Build - CQ

Proposal

options were eli	iminated based	d on this factor.		
Approved Project	Delivery Meth	nod:		
Design-Bid-Build	$\times$	Design-Build	CM/GC	
Approved Type of				
Competitive Sealed Proposal	Bid X C	Competitive Cost	Proposal Co	ompetitive Qualifications
(D-B-B or D-I	B only) (CM	/GC or D-B only)	(CM/GC	or DB only)

**Brief Explanation:** Based on the fact that none of the Major Factors were able to eliminate any of the options, the design-bid-build option was automatically considered to be the most appropriate option.

## APPLYING THE MAJOR FACTORS – SAMPLE PROJECTS (CONTINUED)

### EXAMPLE #3: FOUR JUVENILE DETENTION CENTERS

#### **Project Summary:**

to try CM/GC CQ.

New juvenile detention centers; need for the space was immediate; there were four facilities and a prototype design was desired to take advantage of operations efficiencies; had the ability to obtain the resources with experience to manage the design and construction

#### **MAJOR FACTORS ANALYSIS**

- SCHEDULE / NECESSITY TO OVERLAP PHASES There was a need to provide these centers as soon as possible. Therefore, the overall completion date drove the need to overlap the phases.
- ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

Tight overall schedule created a tight design schedule, which impacted the ability to create a design to use as the basis for a competitive sealed bid or cost proposal.

- OWNER'S INTERNAL RESOURCES & PHILOSOPHY Had the ability to obtain the resources to manage the design and construction. Wanted to have the design firm assist in helping define and verify the quality.
- DESIRE FOR SINGLE CONTRACT OR SEPARATE **CONTRACTS** Wanted to retain the responsibility for the design and the design prototype. Could have accomplished with either CM/GC or Design-Build competitive qualifications. Therefore, this factor did not eliminate either option.
- REGULATORY/LEGAL OR FUNDING CONSTRAINTS This factor was inconsequential on this project.

#### CMGC - CQ Design/Rulld - CQ Qualifications Competitive Qualificatio Proposal etitive Qualification Proposal Proposal (QBS) **Approved Project Delivery Method:** Design-Build CM/GC Design-Bid-Build **Approved Type of Selection: Proposal Competitive Qualifications** Competitive Sealed Bid Competitive Cost Proposal (D-B-B or D-B only) (CM/GC or D-B only) (CM/GC or DB only) Brief explanation: This was an example of the common occurrence where schedule drove the

Competitive

#### APPLYING THE MAJOR FACTORS - SAMPLE PROJECTS (CONTINUED)

#### EXAMPLE #4: DNR VISITOR CENTER

#### **Project Summary:**

Public visitors center in state park; design was nearly completed when decision to pursue LEED certification was made; Up until this point in time, plan was to use design-bid-build.

#### **MAJOR FACTORS ANALYSIS**

DESIRE FOR SINGLE CONTRACT OR SEPARATE CONTRACTS

The design firm was already on board and design was nearly complete. There was a desire to retain the same design team throughout the rest of the project. This eliminated all Design-Build options.

ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

The late decision to pursue LEED certification was anticipated to create a higher potential for changes to the existing design. Therefore, increasing the risk of using either competitive sealed bid or a competitive cost proposal.

- SCHEDULE / NECESSITY TO OVERLAP PHASES This factor was inconsequential on this project.
- OWNER'S INTERNAL RESOURCES & PHILOSOPHY This factor was inconsequential on this project.
- REGULATORY/LEGAL OR FUNDING CONSTRAINTS
   This factor was inconsequential on this project.

	Georgia	Project Delive	ery Options
		# of CON	TRACTS
	S ELECTION TYPES	TWO contracts	ONE contract
	Competitive S ealed Bid (Low Bid)	Des ign-Bid-Build Competitive Sealed Bid	Design Build Competitive Sealed Bid
1	Competitive Cost Proposal (Best Value)	CM/GC - CC Competitive Cost Proposal	Des ign/31/11d - CC Competitive Cost Propos a
	Competitive Qualifications Proposal (QBS)	CMGC - CQ Competitive Qualifications Proposal	Des ign/Ruild - CQ Competitive unlifications Propolal

	Georgia	Project Delive	ery Options
1		# of CON	TRACTS
	SELECTION TYPES	TWO contracts	ONE contract
	Competitive Sealed Bid (Low Rid)	Des ign B.d-Build Competitive Sealed Bid	Des in Build Competitive Sealed Bid
	Competitive Cost Propos al (Best Value)	CMCC-CC Competitive cost Proposal	Des ign/Strild - CC Competitive Cost Propos a
	Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Proposal	Des ign, Ruild - CQ Competitive qualifications Proposal

Approved Project D	Delivery Method	l:				
Design-Bid-Build		Design-Build		CM/GC		
Approved Type of S	Selection:					
Competitive Sealed	I Bid (	Competitive Cost P	ronosal .	Competitive O	ualifications Proposal	
(D-B-B or D-B		(CM/GC or	•	•	CM/GC or DB only)	_

**Brief explanation:** Making the decision to pursue a LEED certification late in the design and the resulting impact on the ability to produce a design that could be used as the basis of a bid drove the decision to change project delivery methods. This factor, though not entirely eliminating the competitive sealed bid and competitive cost proposal, was used to determine that the risk of using either of these was too great. This left the competitive qualifications proposal as the most appropriate.

#### APPLYING THE MAJOR FACTORS - SAMPLE PROJECTS (CONTINUED)

#### EXAMPLE #5: UPGRADE OF EXISTING DOT REST AREAS

#### **Project Summary:**

Upgrade of existing DOT rest areas; Scope of work well understood (in-house) and potential for changes was minimal; Size of projects were small; Needed someone to stamp the drawings and take responsibility for the design; There was a desire to accelerate the overall project completion.

#### **MAJOR FACTORS ANALYSIS**

- OWNER'S INTERNAL RESOURCES & PHILOSOPHY
  Complete set of documents existed, but needed someone
  to stamp the drawings. Resources were limited to manage
  this effort on the multiple locations. This factor made the
  Design-Bid-Build and CM/GC options less appropriate.
- DESIRE FOR SINGLE CONTRACT OR SEPARATE CONTRACTS

There was little ability or desire to take responsibility for the design and possibly having to arbitrate between the design team and the contractor.

- SCHEDULE / NECESSITY TO OVERLAP PHASES
  With the desire to accelerate the overall completion of the
  project, though not a major savings in time, having one
  selection in lieu of two helped make Design-Build a better
  option.
- ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

Since scope was very well defined and there was little potential for changes, neither the competitive cost nor the qualifications proposal was necessary. This left Design-Build with a competitive sealed bid as the most appropriate option.

REGULATORY/LEGAL OR FUNDING CONSTRAINTS
 This factor was inconsequential on this project.

	# of CON	TRACTS
SELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	Des ign Bjd-Build Competitive Cealed Bid	<b>Des ign-Build</b> Competitive S ealed B
Competitive Cost Proposal	CMQC/CC Competitive of Propos al	Des ign/B uild - CO
(Best Value)	<b>→</b>	
Competitive Qualifications Propos al (QBS)	CMCC - CQ Competitive qualifications	<b>Des ign/B uild - C(</b> Competitive Qualification Proposal
Georgia	Project Delive	rv Options
Georgia	Project Delive	
Georgia SELECTION TYPES		
	# of CON	TRACTS
SELECTION TYPES  Competitive Sealed Bid	TWO contracts  Design B, d-B uild	ONE contract  Design-Build

	# of CONTRACTS	
SELECT:ON TYPES	TWO contracts	ONE contract
Competitive Sealed Bid (Low Bid)	Design B/d-Build Competitive Sealed Bid	<b>Des ign-Build</b> Competitive S ealed Bio
Competitive Cost Propos al (Best Value)	CMCC - CC Competitive Cost Proposal	Des ign/Ruild - CC Competitive Cost Propos
Competitive Qualifications Propos al (QBS)	CMC-CQ Competitive Qualifications Popo al	Des ign/2 vild - CQ Competitive Qualification Proposal

#### **Approved Project Delivery Method**:

	_			
Design-Bid-Build		Design-Build X	CM/GC	

#### **Approved Type of Selection:**

$\overline{\vee}$		
Competitive Sealed Bid	Competitive Cost Proposal	Competitive Qualifications Proposa
(D-B-B or D-B only)	(CM/GC or D-B only)	(CM/GC or DB only)

**Brief explanation:** This was a good example of a project that had the right combination of circumstances where Design-Build with a low bid selection process made sense. This example also illustrates how the project size and complexity are not necessarily good factors to determine the best option.

#### 6. GSFIC "PROJECT DELIVERY OPTION RECOMMENDATION FORM"

For any agency requesting the use of any option other than the Design-Bid-Build, GSFIC requests that the Client Agency complete a "Project Delivery Option Recommendation Form" to be submitted to the director of the Construction Division of the GSFIC. The form is attached to these Guidelines as Appendix D.

Using a Major Factors Worksheet (Appendix C.), the Client Agency should consider all of the factors relevant to their project, clarify their thoughts, and determine which delivery options are least appropriate for their particular project. This is also the time for the Client Agency to seek the counsel from their trusted advisers. Then, the Agency, using this information as the basis, should complete the "Project Delivery Option Recommendation Form" (Appendix D.) to recommend the option that the Agency feels is most appropriate.

[End of Volume 2 of Project Delivery Options, "Selecting the Appropriate Project Delivery Option - Recommended Guidelines"]

#### Appendix A - Georgia code, Section 50-5-67

50-5-67.

- (a) Except as otherwise provided in this Code section, contracts exceeding \$100,000.00 shall be awarded by competitive sealed bidding. If the total requirement of any given commodity will involve an expenditure in excess of \$250,000.00, sealed bids shall be solicited by advertisement in the Georgia Procurement Registry established under subsection (b) of Code Section 50-5-69 and in addition may be solicited by advertisement in a newspaper of state-wide circulation at least once and at least 15 calendar days, except for construction projects which shall have 30 calendar days allowed, prior to the date fixed for opening of the bids and awarding of the contract. Other methods of advertisement, however, may be adopted by the Department of Administrative Services when such other methods are deemed more advantageous for the particular item to be purchased. In any event, it shall be the duty of the Department of Administrative Services to solicit sealed bids from reputable owners of supplies in all cases where the total requirement will exceed \$100,000.00. When it appears that the use of competitive sealed bidding is either not practicable or not advantageous to the state, a contract may be entered into by competitive sealed proposals, subject to the following conditions:
- (1) This method of solicitation shall only be used after a written determination by the Department of Administrative Services that the use of competitive sealed bidding is not practicable or is not advantageous to the state:
  - (2) Proposals shall be solicited through a request for proposals;
- (3) Adequate public notice of the request for proposals shall be given in the same manner as provided for competitive sealed bidding;
- (4) Proposals shall be opened in the same manner as competitive sealed bids. A register of proposals shall be prepared and made available for public inspection;
  - (5) The request for proposals shall state the relative importance of price and other evaluation factors;
- (6) As provided in the request for proposals and under regulations to be developed by the Department of Administrative Services, discussions may be conducted with reasonable offerors who submit proposals determined to be reasonably susceptible of being selected for award, for the purpose of clarification to assure full understanding of and responsiveness to the solicitation requirements. Offerors shall be accorded fair and equal treatment with respect to any opportunity for discussion and revision of proposals; and such revisions may be permitted after submissions and prior to award for the purpose of obtaining best and final offers. In conducting discussions there shall be no disclosure of any information derived from proposals submitted by competing offerors; and
- (7) The award shall be made to the responsible offeror whose proposal is determined in writing to be the most advantageous to the state, taking into consideration price and the evaluation factors set forth in the request for proposals. No other factors or criteria shall be used in the evaluation. The contract file shall contain the basis on which the award is made.
- (b) Except as otherwise provided for in this part, all contracts for the purchases of supplies, materials, or equipment made under this part shall, wherever possible, be based upon competitive bids and shall be awarded to the lowest responsible bidder, taking into consideration the quality of the articles to be supplied and conformity with the standard specifications which have been established and prescribed, the purposes for which the articles are required, the discount allowed for prompt payment, the transportation charges, and the date or dates of delivery specified in the bid. Competitive bids on such contracts shall be received in accordance with rules and regulations to be adopted by the commissioner of administrative services, which rules and regulations shall prescribe, among other things, the manner, time, and places for proper advertisement for the bids, indicating the time and place when the bids will be received; the article for which the bid shall be submitted and the standard specification prescribed for the article; the amount or number of the articles desired and for which the bids are to be made; and the amount, if any, of bonds or certified checks to accompany the bids. Any and all bids so received may be rejected.
- (c) When bids received pursuant to this part are unreasonable or unacceptable as to terms and conditions, are noncompetitive, or the low bid exceeds available funds and it is determined in writing by the Department

of Administrative Services that time or other circumstances will not permit the delay required to resolicit competitive bids, a contract may be negotiated pursuant to this Code section, provided that each responsible bidder who submitted such a bid under the original solicitation is notified of the determination and is given a reasonable opportunity to negotiate. In cases where the bids received are noncompetitive or the low bid exceeds available funds, the negotiated price shall be lower than the lowest rejected bid of any responsible bidder under the original solicitation.

(d) Every bid conforming to the terms of the advertisement provided for in this Code section, together with the name of the bidder, shall be recorded, and all such records with the name of the successful bidder indicated thereon shall, after award or letting of the contract, be subject to public inspection upon request. The Department of Administrative Services shall also, within five days after the award or letting of the contract, publish the name of the successful bidder on public display in a conspicuous place in the department's office so that it may be easily seen by the public. The public notice on public display shall also show the price or the amount for which the contract was let and the commodities covered by the contract. The Department of Administrative Services shall also, within five days after the award or letting of the contract, publish on public display the names of all persons whose bids were rejected by it, together with a statement giving the reasons for such rejection. All the information required to be placed on public display in a conspicuous place at the office of the Department of Administrative Services shall also be recorded in a permanent book to be kept by the Department of Administrative Services, which record shall always be subject to public inspection upon request. Bids shall be opened in public by the Department of Administrative Services, which shall canvass the bids and award the contract according to the terms of this part. A proper bond for the faithful performance of any contract shall be required of the successful bidder in the discretion of the Department of Administrative

Services. After the contracts have been awarded, the Department of Administrative Services shall certify to the various departments, institutions, and agencies of the state government the sources of the supplies and the contract price of the various supplies, materials, and equipment so contracted for.

(e) On all sealed bids received or solicited by the Department of Administrative Services, by any department, agency, board, or bureau of the state, or by any person in behalf of any department, agency, board, or bureau of the state, except in cases provided for in Code Section 50-5-58, the following certificate of independent price determination shall be used:

"I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder."

APPENDIX B - THE MAJOR FACTORS (ONE PAGE SUMMARY) - This is a one-page summary of the Major Factors that typically affects the delivery option determination. For further information on these factors and discussion on how they might be applied to a specific project, see the Section 3, "The Major Factors."

Schedule/ Necessity to Overlap Phases	edule/ Necessity to Overlap Ability to Define the Project Scope/ Owner's Internal Resources & Desire for a Single Contract Ses	Owner's Internal Resources & Philosophy	Desire for a Single Contract or Separate Contracts	Regulatory/Legal or Funding Constraints
Tight Project Milestones or Deadlines	Scope Definition	Ability or desire to define and verify program & design content /quality	Ability or desire to take responsibility for managing the design	Regulatory and Statutory Requirements
Critical Question: Is overlap of design and construction phases necessary to meet schedule requirements?	difficult to define?  Ramifications: If it would be difficult to produce a set of drawings and	Critical Question: Will the Owner utilize outside resources to verify quality?  Ramifications: If in-house resources	Critical Question: Does the Owner have in-house design resources qualified to oversee design professionals, and does the owner have the ability to commit	Critical Question: Do laws rules, regulations, etc., permit the use of an alternative project delivery method?
Ramifications: If the project requires a schedule that can only be maintained by overlapping of the design and construction phases, then one of the alternative delivery options should be considered.	specifications that will fully describe the work in question (e.g., a renovation of an existing building), then one of the qualifications based selection options should be considered.	are not available, then extra caution should be taken when using designbuild. If design/build is desired and inhouse resources are not available, outside resources should be engaged to assist in verifying that the quality desired by the owner is incorporated.	sufficient resources to design management?  Ramifications: Ability and desire to manage the design of a project are both reasons to consider holding separate contracts for design and construction, and arque against Design-Build.	Ramifications: The decision on what delivery option is most appropriate must be made early in the Predesign phase of the project and properly documented so that sufficient time and justification can be prepared to gain approval for an alternative delivery option if that option is most appropriate.
Amount of overlap of design and construction phases	Potential for Changes during Construction	Experience with the particular delivery method & forms of contracts	Ability or desire to eliminate responsibility for disputes between design and builder / single point	State Budget and Funding Cycle Critical Question: Is funding available for
Critical Question: Is there time to complete the Design Development stage of the design prior to starting	Critical Question: Is there a significant potential for changes during the construction phase?	Critical Question: Is agency in-house personnel experienced in alternative delivery options or, if not, will in-house	responsibility Critical Question: Does the Owner desire	construction at initiation of design?  Ramifications: While any of the options
construction? Ramifications: If the project	Ramifications: If the scope of the project is likely to change cluring construction	personnel be augmented by other agency or contracted personnel?	to hold a single entity responsible for coordination, collaboration, and productivity for the entire project?	will work with Complete Project Funding, any phasing of the funding can have a major impact on the decision of which
requires that construction start early in the design process, then who is taking resonneithlity for managing	then one of the qualifications based delivery options may be more announted.	Ramifications: Regardless of the delivery option selected, if the Client Anency is inexperienced in	Ramifications: The integrated nature of Design-Ruild with its single contract	Complete Project Funding, Design/Build is not feasible.
completion of the design needs to	properties at example man project where the tenants are unknown or likely to change. In this example, the identification of the formers may be on the contribution of the formers and the formers and the formers are the contribution of the formers and the formers are the contribution of the contribu	management of a capital outlay program, assistance should be obtained by contradionality or contributions.	allows the Owner to hold a single entity responsible for the project and keeps	
be constitued. Transferring the design risk to the party responsible for construction may be a reason to consider using Design-Build in lieu of CM/GC.	identification of the tenains may be a cause for required changes throughout all phases of the project including during the Construction phase.	by contracting with an experienced professional or by making arrangements for assistance from another state agency that has that experience.	disputes between the designer and the builder in-house with the Design-Builder.  The trade-off is the loss of Owner leverating to the skill sets separately.	
	Need/Desire for the Contractor Input during design	Ability to participate in multiple trade contractor / supplier evaluation		
	Critical Question: Is Contractor input during design required or desired?	Critical Question: Do you need the ability to participate in the selection / evaluation of trade contractors or		
	Ramifications: If the assistance of the contractor is desired during the design	suppliers?		
	constructability reviews, schedule determination, or budget confirmation,	degree of flexibility on many elements of the project, a competitive		
	then one of the alternative delivery options should be considered.	qualifications selection option will arrord you greater control and cost transparency.		
	Flexibility to make design changes after construction cost commitment	Desired contractual relationship and ability to recoup savings		
	Critical Question: Are your design and scope requirements fully defined?	Critical Question: Does the Owner wish to have a complete access to all of the Contractor's Information?		
	Ramifications: If a significant amount of flexibility is required after commitment to a contractor then a qualifications based selection method might be more appropriate.	Ramifications: If the project necessitates an open, collaborative relationship, a competitive qualifications selection should be considered.		

### **Appendix C – Major Factors Worksheet**

**Instructions:** For each of the following major factors, review them with your group of trusted adviser and apply them to the unique circumstances of each individual project. It is suggested that you use a pencil and as you consider each factor mark off the options that appear to be least likely to be appropriate.

PROJECT:	

SCHEDULE / NECESSITY TO OVERLAP PHASES

Georgia Project Delivery Options		
	# of CONTRACTS	
SELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	<b>Des ign-B id-B uild</b> Competitive S ealed B id	<b>Des ign-Build</b> Competitive S ealed Bid
Competitive Cost Propos al (Best Value)	CM/GC - CC Competitive Cost Proposal	Des ign/Build - CC Competitive Cost Propos
Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Propos al	Des ign/Build - CQ Competitive Qualification: Propos al

• ABILITY TO DEFINE PROJECT SCOPE / POTENTIAL FOR CHANGES

Georgia Project Delivery Options		
	# of CONTRACTS	
S ELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	<b>Des ign-B id-B uild</b> Competitive S ealed B id	<b>Des ign-B uild</b> Competitive S ealed Bid
Competitive Cost Propos al (Best Value)	CM/GC - CC Competitive Cost Proposal	Des ign/Build - CC Competitive Cost Proposal
Competitive Qualifications Propos al (QBS)	CMGC - CQ Competitive Qualifications Proposal	Des ign/Build - CQ Competitive Qualifications Propos al

OWNER'S INTERNAL RESOURCES & PHILOSOPHY

Georgia Project Delivery Options		
	# of CONTRACTS	
S ELECTION TYPES	TWO contracts	ONE contract
Competitive S ealed Bid (Low Bid)	<b>Des ign-Bid-Build</b> Competitive S ealed Bid	<b>Des ign-Build</b> Competitive S ealed Bio
Competitive Cost Propos al (Best Value)	CM/GC - CC Competitive Cost Proposal	Des ign/Build - CC Competitive Cost Propos
Competitive Qualifications Proposal (QBS)	CMGC - CQ Competitive Qualifications Proposal	Des ign/B uild - CQ Competitive Qualification Propos al

DESIRE FOR SINGLE CONTRACT OR SEPARATE CONTRACTS

**Georgia Project Delivery Options** 

REGULATORY/LEGAL OR FUNDING CONSTRAINTS

# **Appendix D – Project Delivery Option Recommendation Form** Project Name: \_\_\_\_\_\_ State Agency: \_\_\_\_\_ Explain which factor(s) were the basis for the recommendation of the option you indicated below. Also, explain why you did not recommend the other options, particularly Design-Bid-Build: Owner's Internal Resources & Philosophy Necessity to Overlap Phases Ability to Define Scope Desire for Single Contract Regulatory/Legal or Funding Constraints Other Factors Recommended Project Delivery Method (check one): Design-Build Design-Bid-Build CM/GC Recommended Type of Selection (check one): Competitive Sealed Bid Competitive Cost Proposal Competitive Qualifications Proposal (D-B-B or D-B only) (CM/GC or D-B only) (CM/GC or D-B only) Briefly explain why you did not recommend the other options:

Recommendation by:

(Print name):

(Signature):

Date:

## **Appendix E – Project Delivery Options Matrix**

When the definitions for the delivery methods and the selection types are put in matrix form, the following matrix is created:

Georgia Project Delivery Options (with Selection Types) # of CONTRACTS		
SELECTION TYPES	Designer & Contractor (2 s eparate contracts)	Des ign/Builder (1 combined contract)
Competitive S ealed Bid (Low Bid)  Total Construction Cost is sole criteria for final selection	Des ign-Bid-Build	Des ign-Build Competitive S ealed Bid
Competitive Cost Proposal (Best Value)  Total Construction Cost and other criteria are weighted factors in the final selection	CM/GC Competitive Cost Proposal	Des ign/Build Competitive Cos t Propos al
Competitive Qualifications Propos al (Qualifications Based Selection)  Total Construction Costs are <u>not</u> a factor in the final selection criteria	CM/GC Competitive Qualifications Proposal	Des ign/Build Competitive Qualifications Propos al